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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,785	03/08/2004	Leslie R. Fine	200401144-1	4138

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EXAMINER
JARRETT, SCOTT L

ART UNIT	PAPER NUMBER
3624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	10/797,785	FINE ET AL.	
	Examiner	Art Unit	
	SCOTT L. JARRETT	3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 September 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-23</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-23</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Non-Final Office Action in response to the Appeal Brief filed September 23,

2008. Examiner is re-opening prosecution in response to applicant's remarks filed

September 23, 2008. Currently Claims 1-23 are pending.

Response to Arguments

2.   Applicant's arguments, see Paragraph 1, Page 16, filed September 17, 2008,

with respect to the rejection(s) of claim(s) 1, 10, 19 and 22 over Geiger in view of

Horrigan have been fully considered and are persuasive (see Remarks: Last

Paragraph, Page 10). Therefore, the rejection has been withdrawn. However, upon

further consideration, a new ground(s) of rejection is made in view of Kaplan, U.S.

Patent No. 7,155,510, Sarin, An Approach for Long Term Forecasting with an

Application to Solar Electric Energy (1979) and Pennock et al., The Power of Play:

Efficiency and Forecast Accuracy in Web Market Games (2001).

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   Claims 1-9 and 22-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-9 based on Supreme Court precedent, a method/process claim must (1) be tied to another statutory class of invention (such as a particular apparatus) (see at least Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780, 787-88 (1876)) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (see at least Gottschalk v. Benson, 409 U.S. 63, 71 (1972)).

A method/process claim that fails to meet one of the above requirements is not in compliance with the statutory requirements of 35 U.S.C. 101 for patent eligible subject matter. Here claims 1-9 fail to meet the above requirements because they are not tied to another statutory class of invention.

Nominal recitations of structure in an otherwise ineligible method fail to make the method a statutory process. See Benson, 409 U.S. at 71-72. As Comiskey recognized, "the mere use of the machine to collect data necessary for application of the mental process may not make the claim patentable subject matter." Comiskey, 499 F.3d at 1380 (citing In re Grams, 888 F.2d 835, 839-40 (Fed. Cir.1989)). Incidental physical

limitations, such as data gathering, field of use limitations, and post-solution activity are not enough to convert an abstract idea into a statutory process. In other words, nominal or token recitations of structure in a method claim do not convert an otherwise ineligible claim into an eligible one.

Regarding Claims 22-23, claims 22-23 do not utilize the proper computer program product format and effectively recite descriptive material (software) per se and are therefore deemed to be directed to non-statutory subject matter where there is no indication that the proposed software is recorded on computer-readable medium and capable of execution by a computer. Examiner suggests that the applicant incorporate into Claims 22-23 language that the proposed software is recorded on computer-readable medium and capable of execution by a computer to overcome this rejection.

Correction required. See MPEP § 2106 [R-2].

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-6, 8-14 and 17-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kaplan, U.S. Patent No. 7,155,510 in view of Sarin, Rakesh K. An

Approach for Long Term Forecasting with an Application to Solar Electric Energy

(1979).

        Regarding Claims 1, 10, 19 and 22 Kaplan teaches a method and system for

forecasting comprising:

        - determining at least one participant characteristic of a participant (Column 4,

Lines 49-52; Column 5, Lines 32-40; Column 6, Lines 64-68; Column 7, Lines 1-26;

Column 8, Lines 9-14);

        - defining predictions each corresponding to a probability associated with an

expected outcome (Column 6, Lines 40-55);

        - performing a query process with the probability as assets (information,

securities, financial instruments, etc.; Column 4, Lines 30-68; Column 5, Lines 1-8;

Column 6, Lines 5-24; Column 9, Lines 5-12);

- aggregating a result of the query process with weighting for the participant

characteristic (WPSE, CPI; Column 6, Lines 5-12, 40-68; Column 7, Lines 1-25; Column

8, Lines 9-15, 43-60; Column 10, Lines 12-34; Column 11, Lines 22-26).

While providing probabilities forecasts for various possible/expected outcomes,

e.g. probability bins, buckets, classes, ranges of expected outcomes, rain/no rain) is old

and very well known (see for example: Grier, Verification of Forecasts Expressed in

Terms of Probability (1950); Wiper, Combining experts' opinions' using a normal-

Wishart model (1995) or Siekmann et al., Information Fusion in the Context of Stock

Index Prediction (2001) and while Kaplan teaches defining a plurality of expected

outcomes and associating probability with each Kaplan does not expressly use the

phrase "probability bins" as claimed (see range of potential definitions recited in

Applications specification: Paragraphs 55, 58; Figure 6).

Sarin teaches defining probability bins each corresponding to a probability

associated with an expected outcome (scenarios, probability distributions; Abstract;

Paragraphs 1-2, Page 546; Paragraph 1, Page 547; Last Paragraph, Page 550) in an

analogous art of forecasting for the purpose of predicting/forecasting alternative

projections/scenarios (Paragraph 2, Page 544; Paragraph 1, Page 553).

Sarin further teaches a system and method for forecasting comprising:

performing a query process with the probability bins and aggregating a result of the

query process with weighting for individual participant characteristic(s) (Section 8,

Pages 551-552).

It would have been obvious to one skilled in the art at the time of the invention

that the system and method for forecasting as taught by Kaplan would have benefited

from defining probability bins having an associated probability in view of the teachings

of Sarin; the resultant system/method enabling users to forecast alternative

scenarios/outcomes (Sarin: Paragraph 2, Page 544).

Further since the claimed invention is merely a combination of old elements, and

in the combination each element merely would have performed the same function as it

did separately, and one of ordinary skill in the art would have recognized that the results

of the combination were predictable.

Regarding Claims 2, 9, 11, 20 and 23 Kaplan teaches method and system further

comprising conducting an market (information, decision, prediction, matching, betting,

trading, wagering, speculative, virtual, idea, event derivatives, etc.) to determine the

participant characteristic (Column 6, Lines 5-12, 40-68; Column 7, Lines 1-25; Column

8, Lines 9-15, 43-60; Column 10, Lines 12-34; Column 11, Lines 22-26).

Regarding Claims 3-4, 13, 18 and 21 Kaplan teaches a forecasting system and

method further comprising determining the mean, average and other common

statistical/mathematical parameters associated with the forecasts/probabilities

associated with the expected outcomes (Column 56, Lines 4—53; Column 11, Lines 22-30).

Kaplan does not expressly teach probability bins as claimed.

Sarin teaches defining a center probability bin and defining the probability bins with increasing variances from the center probability bin outward and providing a mean estimate as the center probability bin (Paragraphs 1-2, Page 550; Paragraph 2, Page 552; Table 7) in an analogous art of forecasting for the purpose of predicting/forecasting alternative projections/scenarios (Paragraph 2, Page 544; Paragraph 1, Page 553).

It would have been obvious to one skilled in the art at the time of the invention that the system and method for forecasting as taught by Kaplan would have benefited from defining probability bins having probabilities associated with expected outcomes as well as defining a center probability bin in view of the teachings of Sarin, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding Claims 5 and 14 Kaplan teaches a method and system wherein the further comprising historical (true, actual, measured, factual, etc.) data associated with the forecasts (probabilities associated with expected outcomes; Column 4, liens 50-53; Column 9, lines 26-34; Column 11, Lines 15-17) for the purpose of comparing participant's forecasted data with actual/true historical data related to the expected outcome.

Kaplan does not expressly teach subdividing data (forecasts, predictions, expected outcomes, etc.) into probability bins as claimed.

Sarin teaches subdividing forecasts/data into probability bins (scenarios, probability distributions; Abstract; Paragraphs 1-2, Page 546; Paragraph 1, Page 547; Last Paragraph, Page 550) in an analogous art of forecasting for the purpose of predicting/forecasting alternative projections/scenarios (Paragraph 2, Page 544; Paragraph 1, Page 553).

It would have been obvious to one skilled in the art at the time of the invention that the system and method for forecasting as taught by Kaplan would have benefited from defining probability bins (subdividing predictions/forecasts) in view of the teachings of Sarin; the resultant system/method enabling users to forecast alternative scenarios/outcomes (Sarin: Paragraph 2, Page 544).

Further since the claimed invention is merely a combination of old elements, and

in the combination each element merely would have performed the same function as it

did separately, and one of ordinary skill in the art would have recognized that the results

of the combination were predictable.

Regarding Claims 8 and 17 Kaplan teaches a method and system wherein the

weighting includes individual participant prediction for the participant and the query

process as a whole (Column 7, Lines 1-25; Column 8, Lines 9-15, 43-60; Column 10,

Lines 12-34; Column 11, Lines 22-26).

While Kaplan teaches that any of a plurality of none weighting schemes could be

used (Column 14, Lines 56-60) Kaplan does not expressly teach utilizing exponential

factoring for the participant characteristic and the query process as a whole as claimed.

Official notice is taken that exponential factoring is an old and well know

mathematical/statistical technique, method and/or approach. Common exponential

factoring in forecasts include exponential weighted averaging, exponential smoothing

factors, MACD (exponential) and the like.

It would have been obvious to one skilled in the art at the time of the invention

that the system and method for forecasting as taught by the combination of Kaplan and

Sarin would have benefited from utilizing any of a plurality of weighting factors including

but not limited to exponential smoothing in view of the teachings of official notice; since

the claimed invention is merely a combination of old elements, and in the combination

each element merely would have performed the same function as it did separately, and

one of ordinary skill in the art would have recognized that the results of the combination

were predictable.

Claim Rejections - 35 USC § 103

7.   Claims 6-7 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kaplan, U.S. Patent No. 7,155,510 in view of Sarin, Rakesh K. An Approach for

Long Term Forecasting with an Application to Solar Electric Energy (1979) as applied to

claims 1-6, 8-14 and 17-23 above, and further in view of Pennock et al., The Power of

Play (2001).

       Regarding Claims 6-7 and 15-16 Kaplan teaches providing an web-based

software application to facilitate forecasting (Column 5, Lines 25-40)

       Kaplan does not expressly teach wagering by participants on an expected

outcome as claimed.

       Pennock et al. teach a method and system further comprising wagering (betting)

by the participant on the expected outcome as well as facilitating participant wagering

by providing a web-based software application (HSX, FSX; Paragraphs 2-3, Last

Paragraph, Page 5; Last Paragraph 3, Paragraph 1, Page 4; Last Paragraph, Page 16;

Paragraph 1, Page 17) in an analogous art of forecasting.

       It would have been obvious to one skilled in the art at the time of the invention

that the forecasting system and method as taught by Kaplan would have benefited from

enabling participants to wager/bet on expected outcomes in view of the teachings of

Pennock et al. since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Lundgren, U.S. Patent No. 5,608,620, teach a forecasting system and method comprising: eliciting and aggregating participant predictions/forecasts (probabilities) associated with expected outcomes wherein the aggregation accounts for participant characteristics (e.g. weights, bias, brier rule).

- Park, WO 01/86532 (2001), teaches an online market for financial forecasting (online index forecasting game) wherein participants bet/wager on expected outcomes over the Internet.

- Brier, Verification of Forecasts Expressed in Terms of Probabilities (1950), teach a method for defining a plurality of probability bins (classes) associated with the probabilities of expected outcomes, eliciting forecasts (probabilities) associated with the probability bins and verifying the forecasts.

- Bhola, Expert Opinion in Project Management (1992), teach a system and method of forecasting comprising querying and aggregating participant predictions of the probabilities of expected outcomes and accounting for participant characteristics (entropy, calibration).

- Taylor et al., Combining forecast quantiles using quantile regression (1998), teach a forecasting system and method comprising aggregating expert forecasts (probability of an expected outcome) associated with probability bins (quantiles) including weighting the forecast using extracted participant characteristics.

- Wiper et al., Combining Experts Opinions Using a normal-Wishart Model (1995), teach a forecasting system and method comprising performing a query process for eliciting participant probabilities of expected outcomes associated with probability bins (forecast quantiles) and aggregating a result of the query process.

- Chen et al., Forecasting Uncertain Events with Small Groups (2001), teaches an online system and method for forecasting uncertain events comprising: determining at least one participant characteristic, defining probability bins correspoding to a probability associated with an expected outcome, performing a query process with the probability bins as assets, aggregating a result of the query process with weighting for participant characteristic.

- Mayor, Raymond J. et al., Aggregating expert predictions in a networked environment (2001) teach a system and method for forecasting comprising performing a query process for eliciting probabilities associated with an expected outcome, aggregating a result of the query process with weighting for participant characteristic.

- Pennock et al., Extracting Collective Forecasts from Web Games (2001) teach an online system and method for forecasting comprising determining at least one participant characteristics, performing a query process wherein participants provide probabilities/forecasts associated with expected outcomes and aggregating a result of the query process with weighting for the participant characteristics.

- Siekmann et al., Information Fusion in the Context of Stock Index Prediction (2001) teaches a system and method of financial forecasting comprising: defining probability bins, each of the probability bins corresponding to a probability associated

with an expected outcome and wherein the bins are assets (Section 4.1, Classical

Model, Page 1294; quantiles, "probability bins") and aggregating a result of a query

process with weighting (e.g. calibration and information scores for experts' forecasts) for

an individual participant characteristic.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SCOTT L. JARRETT whose telephone number is

(571)272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM -

5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bradley Bayat can be reached on (571) 272-6704. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott L Jarrett/
Primary Examiner, Art Unit 3624